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ABSTRACT

Levels of student satisfaction with the Great Lakes Colleges Association - Philadelphia Urban Semester, a 16-week multidisciplinary urban field study program, were investigated. Several aspects of the program, including the four day per week field placement, weekly "city" seminar, elective seminar, and minimally structured living experience were assessed to determine factors contributing to satisfaction in the work environments. Students (N=164) completed the Work Environment Scale three times during the semester. Results indicated that: (1) conformity between student expectation and student perception of reality is not associated with levels of satisfaction with a work placement; (2) there is no evidence that student assessments of the work environment tend to become more realistic after field experiences for at least eight weeks; and (3) the degree to which satisfaction contributes to enhanced levels of learning and goal attainment is not assessable. (Author/HLM)

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GLCA-PHILADELPHIA URBAN SEMESTER

"Work, Learning and Satisfaction in Undergraduate Field Studies"

Francis M. Betts III, Ed.D.

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INTRODUCTION

Learning theory suggests that the behaviors associated with an experience which has a satisfying outcome tend to be repeated with greater frequency and/or intensity. Thus, learning experiences accompanied by satisfaction should be a goal of higher education.

Undergraduate students enrolled in the Great Lakes Colleges Association-Philadelphia Urban Semester, a sixteen week, multi-disciplinary urban field study program, are asked to assess their levels of satisfaction with four aspects of the program:

1. The four-day per week field placement
2. The weekly "city seminar," intended to develop a student's knowledge and skill in applying one or more techniques of analysis to urban systems
3. An elective seminar organized on single disciplinary theme
4. The minimally structured experience of living in an urban area

The results of student assessment and program evaluations, both internal and by independent external evaluators (F. Betts, 1977; F. Cropp and others, 1977) have shown that the four-day per week placement has consistently resulted in the highest level of reported student satisfaction. This conclusion is based both on the use of

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formal rating scales completed by students, anecdotal self-reports, and by interview with faculty and students.

If one accepts the opening premise, it would be to our advantage to explore the variables contributing to the level of satisfaction in an effort to enhance it and thereby increase the associated learning activity. Accordingly, an investigation of the factors contributing to satisfaction in the work environments within which our students were placed during the Fall 1977 and Spring 1978 was undertaken.

ASSUMPTIONS

Students do not select placements prior to their arrival in Philadelphia, although they undoubtedly bring with them predispositions based on prior information and their future academic and career aspirations. Students in the Philadelphia Urban Semester are placed in ten or sixteen week-long field placements based on their expressions of academic and/or vocational interests. The placement process begins with a review of the student's written application which is followed up with an intake interview by a member of the faculty.

GLCA staff currently believe that the intake interview, which typically takes 1 to 1½ hours, is the most useful source of information in assisting the student to secure a satisfactory placement. A copy of the intake interview form is attached as Appendix A. Choice of a placement is made by a student in the second or third week of the program. Placement is made only after a series of interviews with two or more placement possibilities; the average number of organizations interviewed is slightly over three per student.

In choosing a placement, the Philadelphia faculty assumes that the student does so because the placement conforms most closely to the student's "idealized" placement. Furthermore, if the selection is a "good" one (i.e., does conform closely), we assume that the student will be more satisfied and therefore have greater opportunity for learning, than a student choosing a placement that conforms less closely to his or her expectations. If it could be demonstrated that there is a high degree of association between expectations and satisfaction, we would have gained a valuable piece of information useful for the improvement of the design of the program, particularly the placement process.

The Work Environment Scale (Insel, P.M. and Moos, R.H., 1974) provided a convenient means of collecting standardized information on both pre-placement expectations and realizations during and after the placement. The Work Environment Scale (WES) assesses the social climate of all types of work units. It focuses on the measurement and description of the interpersonal relations among employees and between managers and employees; on the directions of personal growth and development which are emphasized in the work unit; and on the basic organizational structure of the unit. (Moos et. al., 1974, p. 16).

The WES Form E (expectations) and Form R (reality) were used for this purpose. The result in the first instance was a score of each of ten dimensions of the work environment, shown in Table I, based on the student's idealized (i.e. hoped for) placement, while the Form R was used for data provided both by students and full-time employees at the placement.

TABLE 1

Work Environment Subscale Descriptions

		Relationship Dimensions
1.	Involvement	Measures the extent to which workers are concerned and committed to their jobs; includes items designed to reflect enthusiasm and constructive activity.
2.	Peer Cohesion	Measures the extent to which workers are friendly and supportive of each other.
3.	Staff Support	Measures the extent to which management is supportive of workers and encourages workers to be supportive of each other.
		Personal Growth Dimensions
4.	Autonomy	Assesses the extent to which workers are encouraged to be self-sufficient and to make their own decisions. Includes items related to personal development and growth.
5.	Task Orientation	Assesses the extent to which the climate emphasized good planning, efficiency and encourages workers to "get the job done."
		System Maintenance and Systems Change Dimensions
6.	Work Pressure	Measures the extent to which the pressure of work dominates the job milieu.
7.	Clarity	Measures the extent to which workers know what to expect in their daily routines and how explicitly rules and policies are communicated.
8.	Control	Measures the extent to which management uses rules and pressures to keep workers under control.
9.	Innovation	Measures the extent to which variety, changes, and new approaches are emphasized in the work environment.
10.	Physical Comfort	Assesses the extent to which the physical surroundings contribute to a pleasant work environment.

Moos, R.P. nad B.H. Insel, 1974b.

The first three subscales, Involvement, Peer Cohesion, and Staff Support are interpreted as the Relationship Dimension.

> These subscales assess the extent to which employees are concerned and committed to their jobs; the extent to which they are friendly and supportive of each other, the extent to whcih the managers support and help employees and the extent of free and open expression within all these relationships. These subscales assess the type and intensity of personal relationships existing among employees and between employees and the management.
>
> The next two subscales of Autonomy and Task Orientation are conceptualized as Personal Development or Personal Growth dimensions. These subscales assess the extent to which employees are encouraged to be self-sufficient and to make their own decisions and the extent to which the climate emphasizes good planning, efficiency and "getting the job done". These are two dimensions along which self-development or personal growth may occur in different work groups.
>
> The last five dimensions of Work Pressure, Clarity, Control, Innovation, and Physical Comfort are conceptualized as assessing System Maintenance and System Change dimensions. Work Pressure measures the extent to which the pressure of work and time urgency dominates the work situation. The Clarity, Control, and Innovation dimensions are system-oriented in that they are related to keeping the existing work group structure functioning in an orderly and coherent manner and to changing and improving the work milieu. Physical Comfort assesses the degree to which the physical surroundings contribute to a pleasant work environment.
>
> (Moos et. al., 1974, p. 18).

The availability of these data, allowed us to examine the following working hypotheses:

a. That conformity between a student's expectations of the workplace environment and its reality would be associated with high levels of reported satisfaction.

b. That higher levels of reported satisfaction would be accompanied by higher levels of achievement and learning.

c. That students' assessment of the work environment would tend toward closer conformity with the employees' assessment with increasing duration in the placement (i.e. their idealism would be tempered by reality resulting in a more accurate judgement).

METHODOLOGY

All of the students participating in the Philadelphia Urban Semester during the Fall and Spring of 1977-78 were asked to complete the Insel and Moos (1974) Form E during the first orientation week of the program as a part of the intake interviewing process. Students were administered the short version of WES Form E which is intended to identify the student's expectations with respect to the kind of work environment in which they hope or expect to work. Their responses were scored immediately, the results interpreted, and confirmed by the staff interviewer with the student. After these students were placed, their field supervisors and other employees working in similar capacities to those of the student at each placement were asked to complete the WES Form R. These data were requested by the Philadelphia staff during the initial supervisory visit to a placement, usually during the fourth and fifth week of the program. Non-responses were followed up by mail, telephone, and finally in person during a later supervisory visit by the Philadelphia staff.

WES Form R's were also collected from all of the students during the last two weeks of the semester during final supervisory conferences. Intermediate WES Form R scores were collected during the eight and ninth weeks from a random sample of students. Both the student's Form E and the supervisor's Form R are then scored, according to the procedures developed by Moos (1974) for each of the ten scales described in Table 1. Simple statistical analysis, following tabulation by group and test, using Student's T and Pearson product-moment correlation analysis of the resulting scores was then done. The results are reported below.

RESULTS

Complete responses were received from 164 students. The demographic breakdowns by sex, year of graduation, and college affiliation are shown in Tables II, III, and IV. Responses were received from 63 supervisors and employees covering all of the placements at which the students were placed. Analysis of observed differences between arithmatic mean scores for each pair of scores on each of the ten dimensions measured by the WES produced the following results.

Student Expectations v. Student Reality

Only one of the dimensions showed a significant difference ($t = 1.82$, $df = 163$) between the students' initial expectations and their reality scores after they had been working for at least eight weeks. The score for Innovation showed a significant decline indicating students perceived the placements, on the average, to be less innovative than they had expected.

Although no statistically significant variations were found for the other nine dimensions, several showed considerable movement, as indicated by their t-values. The directionality of movement is also of some interest, as shown in Figure 1.

Figure 1.: Shifts in Student WES Scores

Expectations v. Reality

	t (df=163)
Increasing Scores (Reality Greater than Expectation)	
Involvement	1.24
Peer Cohesion	1.42
Staff Support	0.51
Autonomy	1.64
Work Pressure	1.28
Control	0.47
Physical Comfort	1.02
Decreasing Scores (Reality Less than Expectation)	
Task Orientation	0.55
Clarity	0.12
Innovation	1.82 (p=.07)

If we subjectively separate these dimensions into those perceived favorably and those perceived unfavorably, the students' stereotype of their work placement could be said to be:

> "I was more involved with closer peer group feelings, more support from the staff, greater freedom and a better physical environment than I had expected before I started to work. Aspects of the placement that I did not like were greater pressure to produce, more control (rules and regulations), lack of clarity, in what was expected of me, and less innovation than I had hoped for."

Student Expectations v. Field Supervisor Reality

According to Moos (1974, p. 21), "A comparison of an individual's expectation of a work unit and the actual climate as assessed by

current employees and managers makes it possible to identify persons whose expectations might cause difficulties in adjusting to the work situation (see Moos 1974b; chapters 9 and 12)." In every single case, the students' mean score for their expectations of the work environment was lower than the corresponding field supervisor rating. This observation might be explained by suggesting that workers in an organization have a tendency to rationalize away dissonance (i.e., dissonance between their need to work and public admission it is a poor work environment produces anxiety which is resolved through rationalization) resulting in a more favorable view of the work environment.

As we see in the next section, there does appear to be a tendency toward increased scores in proportion to duration on the job. Unfortunately, students were not on the job sufficiently long, nor were we able to conduct follow-up studies of employees over sufficiently long a time, to confirm or disconfirm this explanation.

Student Reality v. Field Supervisor Reality

In eight out of the ten dimensions measured, student reality scores remained significantly lower than their field supervisor scores, although the absolute distance declined. That is, student scores did appear to become more realistic when compared to employees. This gives rise to the speculation, as noted above, that the score level may be confounded by duration on the job, a factor which was not taken into account in this design. This appears to be an area where further investigation on a longitudinal basis would be useful.

In one dimension, Innovation, the absolute distance actually increased. After at least eight weeks on the job, students perceived the placement to be less innovative than hoped for and even less innovative ($p=.001$) than reported by the field supervisors.

In the last dimension, Physical Comfort, Students' and Field Supervisors' Reality scores were not significantly different. Physical Comfort is the most concrete of the dimensions measured by the WES. This leads one to the speculation that the degree to which a dimension of the workplace can be operationalized (i.e., made less abstract) might be a significant factor is obtaining congruence in employees perception of the work environment. Logic and Communication Theory tend to support such a conclusion.

Students' and Field Supervisors' Score Relationships

One might reasonably assume that a student whose initial expectations on any single dimension were high would subsequently demonstrate a high score on the reality measure of the same dimension, i.e., a positive correlation between scale scores would exist; the higher the E-score, the higher the R-score. This would be consistent with the "self-fulfilling prophecy" and "cognitive dissonance" hypotheses. When individual scale scores were examined using product-moment correlation, this assumption was not supported.

Student E v. Student R: When the Students' R-scores, were compared with the Field Supervisors' R-scores, significant correlation ($p=.01$) was observed for three of the ten scales, Clarity, Control, and Physical Comfort. Two of these scales: Clarity and Control, were consistently ranked high by students when asked to identify those aspects of a placement which contributed to their

satisfaction or dissatisfaction. Physical Comfort was ranked as the least important of the ten dimensions covered in the WES instrument.

Student E. v. Field Supervisor R: In order to be useful in placing a student, the Student E score, in comparison to both Student-R and Field Supervisor-R, is the critical variable. As noted above, the Student-E, in this context, is not a good predictor of the Student-R. When compared to the Field Supervisor score, neither is it an adequate predictor. The only dimension on which any significant degree of correlation ($p=.01$) exists between the Students' E and the Field Supervisors' R score is in Physical Comfort. Students report being relatively indifferent to this factor with respect to both placement choice and subsequent satisfaction with the placement.

SATISFACTION AND THE WORK ENVIRONMENT

Scores collected using the WES were subsequently compared to reported satisfaction with the placement. Satisfaction was judged using an anecdotal self-report and a set of Rating Scales on which a student was asked to rate his or her "degree of satisfaction" with the placement; the Likert-type scale range was from one (1) to eight (8). A rating scale was used for each dimension on the WES, plus a scale for "overall satisfaction."

As noted in the Introduction, average Overall Satisfaction with the work placement, once again, was highest in comparision to other aspects of the GLCA-Philadelphia Urban Semester Program; $\bar{X} = 7.48$. The amount of variation observed, S.D. = 0.4, suggests

a uniformly high degree of satisfaction being expressed by students. Visual inspection of the arrayed data confirmed this opinion.

In order to examine the relationship between the work environment and satisfaction, the differences between Student E and R-scores were calculated ($|S_e - S_r| = D$). This difference, D, as suggested by Insel and Moos, is a crude measure of conformity of reality to expectation, which they call congruence. Congruence between raters is measured by the absolute difference between the mean raw sub-scale scores. Previously, we hypothesized that the closer the congruence, $D \rightarrow 0$, the higher the degree of satisfaction. On examination the data did not support this hypothesis. No significant correlation between congruence and satisfaction was observed ($p=.01$) for any of the individual dimensions nor overall.

Thus, we conclude that as a predictive measure for satisfaction in a work placement, conformity between student expectation and reality, as measured by the WES instrument, is of little or no utility in placement selection.

We began this study with the assumption that satisfaction with the work placement served as a positive reinforcer which would contribute to enhancement of learning. In order to assess learning, three measures were used. Grade, Student self-evaluation, and field supervisor's evaluation. The first indicator can be regarded as a summary measure of the latter two which are based on the degree to which goals contained in a written learning plan (contract) are perceived to have been achieved. While this approach is the traditional measure by which field experience learning is judged, in this context it proves to be of little utility. The evaluations of

learning are so uniformly high that any attempt to correlate degree of learning with level of satisfaction would be specious. Whether to attribute the lack of variation in outcomes to a deficiency in the assessment process or to the success of the program as an opportunity structure for learning, is left to the reader.

Finally, inspection of the pre-placement student E-scores and R-scores after at least eight weeks in a placement showed movement in the predicted direction; i.e., they tended, in most cases, to conform more closely to those of the employee. Employees, predominently in a supervisory capacity, consistently rated the work environment more favorably than did the student. There are a number of plausible explanations, including duration on the job, difference in job status (paid v. volunteer), or rank (supervisor v. non-supervisory personnel). Unfortunately, we have no data as to the significance of these factors with respect to the variations in R-scores observed.

CONCLUSIONS

With respect to our working hypotheses, we observe that statistical analysis of the data does not support them, therefore they must be rejected. From this we conlude that:

a. Conformity between student expectation and student perception of reality is not associated with their levels of satisfaction with a work placement.

b. We are unable to assess the degree to which satisfaction with a work placement contributes to enhanced levels of learning and goal attainment, if at all.

c. Statistically, there is no evidence of a tendency for student assessment of the work environment to become more realistic after exposure to the "real" work placement for at least eight weeks.

COMMENT

As a consequence of these observations and conclusions, the Philadelphia staff has given up use of the WES instrument as a data collection device for assessing student placement interests at the initial intake interview. During the Winter Term 1979, a limited experiment in using a partial pre-placement process was tried. The assumption here is that if there is no close relationship between expectations, perceived reality, and overall satisfaction with a placement, use of a pre-placement model retains effectiveness with respect to learning, while increasing efficiency in the use of placement resources, particularly staff time.

Rather than waiting for the completion of the intake interview to make recommendations for placements, Winter Term staff made at least two placement appointments for each student based on the student's written application. Of the twenty-six students participating, fifteen of them (58%) selected their placement from among those pre-selected by the staff. This does not compare favorably with the selection rate for the post-arrival intake and placement process, (P=82%). Average level of satisfaction with the resulting placement was as high as previously observed.

Subjectively, staff felt the pre-placement was both more efficient and more effective, because more attention could be devoted to the remaining eleven students for whom the pre-arrival placement selections were initially unsatisfactory. Other favorable

aspects of the pre-placement reported by staff were that it stimulated dialogue between student and staff, reduced student anxiety over securing a placement, and helped students to become actively involved in non-placement activities more quickly.

While this argues in favor of a pre-placement process for efficiency and cost-effectiveness, the GLCA-Philadelphia Program staff will for pedagogical reasons, continue with a combination of partial pre-arrival placement selection and open intake. Students will be encouraged to participate in at least two placement interviews for the educational benefits implicit therein. This decision is consistent with our program goal for increased personal and social efficacy within the urban context.

TABLE II: SEX OF RESPONDENT

CATEGORY LABEL	CODE	ABSOLUTE FREQUENCY	RELATIVE FREQUENCY (PERCENT)	ADJUSTED FREQUENCY (PERCENT)	CUMULATIVE ADJ. FREQ. (PERCENT)
MALE	0	88	53.7	53.7	53.7
FEMALE	1	76	46.3	46.3	100.0
TOTAL		164	100.0	100.0	

TABLE III: YEAR OF GRADUATION

1976	0	75	45.7	45.7	45.7
1977	1	7	4.3	4.3	50.0
1978	2	46	28.0	28.0	78.0
1979	3	20	12.2	12.2	90.2
1980	4	16	9.8	9.8	100.0
TOTAL		164	100.0	100.0	

TABLE IV: COLLEGE AFFILIATION

CATEGORY	CODE	ABSOLUTE FREQUENCY	RELATIVE FREQUENCY (PERCENT)	ADJUSTED FREQUENCY (PERCENT)	CUMULATIVE ADJ. FREQ. (PERCENT)
ALBION	0	26	15.9	15.9	15.9
DENISON	2	26	15.9	15.9	31.7
DEPAUW	3	18	11.0	11.0	42.7
EARLHAM	4	11	6.7	6.7	49.4
HOPE	5	11	6.7	6.7	56.1
KALAMAZOO	6	22	13.4	13.4	69.5
KENYON	7	2	1.2	1.2	70.7
OBERLIN	8	13	17.9	17.9	78.7
OWU	9	3	1.8	1.8	80.5
WABASH	10	6	3.7	3.7	84.1
WOOSTER	11	1	0.6	0.6	84.8
HANOVER	12	12	7.3	7.3	92.1
HARTWICK	13	5	3.0	3.0	95.1
HOBART	14	1	0.6	0.6	95.7
WM SMITH	15	1	0.6	0.6	96.3
JUNIATA	16	1	0.6	0.6	97.6
	20	1	0.6	0.6	97.6
OTHER	99	4	2.4	2.4	100.0
TOTAL		164	100.0	100.0	

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